

TITLE: DSP-16 DUAL-SPECIFICITY PHOSPHATASE
Inventors: Ralf M. Luche et al. Docket No. 200125.434
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Figure 1

1 GAGAGAAGGA GAAGATAATA TACTGAAAAG AAGAGGAGGA GGAGAGCGAC GGGACGGGAC
61 GCGAGCGGGA GCGCAGCCGC CCTCTCGGCT CCGCGGCGGC GCCTCGCAAG TCCGGGAGGC
121 GAGGGGGGCC CGAGGGGAGA CGCCGTGACA ACTTTCGTTT CCCTCTGAGG GAATTGGGAG
181 GTCGGCGGCC CCAAAAGCTT TCACTCCAGT GTAAAGCTGT TGGAGCGCGG GAGCAAAGGT
241 AAAGAATGAT GTAATGCGCT GGCTGCTCCA AAGCATCTTT TGTTGTGGAA TGGTTATTCC
301 AGTCATCTCT TTATGAATCA AATGTGAGGG GCTGCTTTGT GGACGGAGTC CTTTGCAAGA
361 GCACATCAAC GGGAAAGAGA AAGAGACATT CACTTGGAGG GCTCTTGCTG AAAATGGGTT
421 TAACTCTCCT TTTGCCAGTC ACCACCAGCC TGACCTCATA CACTTTTAGT ACAATGGAGT
481 GGCTGAGCCT TTGAGCACAC CACCATTACA TCATCGTGGC AAATTAAAGA AGGAGGTGGG
541 AAAAGAGGAC TTATTGTTGT **CATG**CCCCAT GAGATGATTG GAACTCAAAT TGTTACTGAG
601 AGGTTGGTGG CTCTGCTGGA AAGTGAACG GAAAAAGTGC TGCTAATTGA TAGCCGGCCA
661 TTTGTGGAAT ACAATACATC CCACATTTTG GAAGCCATTA ATATCAACTG CTCCAAGCTT
721 ATGAAGCGAA GGTTCGAACA GGACAAAGTG TTAATTACAG AGCTCATCCA GCATTACGCG
781 AAACATAAGG TTGACATTGA TTGCAGTCAG AAGGTTGTAG TTTACGATCA AAGCTCCCAA
841 GATGTTGCCT CTCTCTCTTC AGACTGTTTT CTCACGTGAC TTCTGGGTAA ACTGGAGAAG
901 AGCTTCAACT CTGTTACCTT GCTTGCAAGT GGGTTTGCTG AGTTCTCTCG TTGTTTCCTT
961 GGCCTCTGTG AAGGAAAATC CACTCTAGTC CCTACCTGCA TTTCTCAGCC TTGCTTACCT
1021 GTTGCCAACA TTGGGCCAAC CCGAATCTTT CCCAATCTTT ATCTTGGCTG CCAGCGAGAT
1081 GTCCTCAACA AGGAGCTGAT GCAGCAGAAT GGGATTGGTT ATGTGTTAAA TGCCAGCAAT
1141 ACCTGTCCAA AGCCTGACTT TATCCCGAG TCTCATTTCC TGCGTGTGCC TGTGAATGAC
1201 AGCTTTTGTG AGAAAATTTT GCCGTGGTTG GACAAATCAG TAGATTTTCT TGAGAAAGCA
1261 AAAGCCTCCA ATGGATGTGT TCTAGTGCAC TGTTTAGCTG GGATCTCCCG CTCCGCCACC
1321 ATCGCTATCG CCTACATCAT GAAGAGGATG GACATGTCTT TAGATGAAGC TTACAGATTT
1381 GTGAAAGAAA AAAGACCTAC TATATCTCCA AACTTCAATT TTCTGGGCCA ACTCCTGGAC
1441 TATGAGAAGA AGATTAGAAA CCAGACTGGA GCATCAGGGC CAAAGAGCAA ACTCAAGCTG
1501 CTGCACCTGG AGAAGCCAAA TGAACCTGTC CCTGCTGTCT CAGAGGGTGG ACAGAAAAGC
1561 GAGACGCCCC TCAGTCCACC CTGTGCCGAC TCTGTACCT CAGAGGCAGC AGGACAAAGG
1621 CCCGTGCATC CCGCCAGCGT GCCCAGCGTG CCCAGCGTGC AGCCGTCGCT GTTAGAGGAC
1681 AGCCCGCTGG TACAGGCGCT CAGTGGGCTG CACCTGTCCG CAGACAGGCT GGAAGACAGC
1741 AATAAGCTCA AGCGTTCCTT CTCTCTGGAT ATCAAATCAG TTTCATATTC AGCCAGCATG
1801 GCAGCATCCT TACATGGCTT CTCCTCATCA GAAGATGCTT TGGAATACTA CAAACCTTCC
1861 ACTACTCTGG ATGGGACCAA CAAGCTATGC CAGTTCTCCC CTGTTCAGGA ACTATCGGAG
1921 CAGACTCCCG AAACCACTCC TGATAAGGAG GAAGCCAGCA TCCCCAAGAA GCTGCAGACC
1981 GCCAGGCCTT CAGACAGCCA GAGCAAGCGA TTGCATTCGG TCAGAACCAG CAGCAGTGGC
2041 ACCGCCCAGA GGTCCCTTTT ATCTCCACTG CATCGAAGTG GGAGCGTGGA GGACAATTAC
2101 CACACCAGCT TCCTTTTTCG CTTTCCACC AGCCAGCAGC ACCTCACGAA GTCTGCTGGC
2161 CTGGGCCTTA AGGGCTGGCA CTCGGATATC TTGGCCCCC AGACCTCTAC CCCTTCCCTG
2221 ACCAGCAGCT GGTATTTTGC CACAGAGTCC TCACACTTCT ACTCTGCCTC AGCCATCTAC
2281 GGAGGCAGTG CAGTTACTC TGCTACAGC TGCAGCCAGC TGCCCACTTG CGGAGACCAA
2341 GTCTATTCTG TGCGCAGGCG GCAGAAGCCA AGTGACAGAG CTGACTCGCG GCGGAGCTGG
2401 CATGAAGAGA GCCCCTTTGA AAAGCAGTTT AAACGCAGAA GCTGCCAAAT GGAATTTGGA
2461 GAGAGCATCA TGTCAGAGAA CAGGTCACGG GAAGAGCTGG GGAAAGTGGG CAGTCAGTCT
2521 AGCTTTTTCG GCAGCATGGA AATCATTGAG GTCTCCTGAG AAGAAAGACA CTTGTGACTT
2581 CTATAGACAA TTTTTTTTTT TTGTTACAAA AAAAATTCCT TGTAATCTG AAATATATAT
2641 ATGTACATAC ATATATATTT TTGGAAAATG GAGCTATGGT GTAAAAGCAA CAGGTGGATC
2701 AACCAGTTG TTAATCTCTT AACATCTGCA TTTGAGAGAT CAGCTAATAC TTCTCTCAAC
2761 AAAAATGGAA GGGCAGATGC TAGAATCCCC CCTAGACGGA GGAAAACCAT TTTATTAGT
2821 GAATTACACA TCCTCTTGTT CTTAAAAAAG CAAGTGTCTT TGGTGTGGG GGACAAAATC
2881 CCCTACCATT TTCCACGTTG TGCTACTAAG AGATCTCAA TATTAGTCTT TGTCGGGACC
2941 CTTCCATAGT ACACCTTAGC GCTGAGACTG AGCCAGCTTG GGGGTCAGGT AGGTAGACCC
3001 TGTTAGGGAG AGAGCCTAGT GGTAAATCCA AGAGAAATGA TCCTATCCAA AGCTGATTCA
3061 CAAACCCACG CTCACCTGAC AGCCGAGGGA CACGAGCATC ACTCTGCTGG ACGGACCATT
3121 AGGGGCCTTG CCAAGGTCTA CCTTAGAGCA AACCAGTAC CTCAGACAGG AAAGTCGGGG
3181 CTTTGACCAC TACCATATCT GGTAGCCCAT TTTCTAGGCA TTGTGAATAG GTAGGTAGCT
3241 AGTCACACTT TTCAGACCAA TTCAAACTGT CTATGCACAA AATTCCTGAG GGCCTAGATG
3301 GAGATAATTT TTTTCTCTTC TCAGCTTTAT GAAGAGAAGG GAACTGTCT AGGATTGAGC
3361 TGAACCAACA GGAACCTGGC AACATCACGA TTAAAGCTAA GGTGGGAGG CTAACGAGTC
3421 TACCTCCCTC TTTGTAAATC AAAGAATTGT TTAATGAGG ATTGTCAATC CTTTAAATAA
3481 AGATGAACCTT GGTTTC

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Figure 2.

MAHEMIGTQIVTERLVALLESGTEKVLLIDSRPFVEYNTSHILEAININCSKLMKRRLQQDKVLITELIQHSAHKV
DIDCSQKVVVYDQSSQDVASLSSDCFLT VLLGKLEKSFNSVHLLAGGFAEF SRCFPGLCEGKSTLVPTCISQPCLPV
ANIGPTRILPNLYLGCQRDVLNKELMQQNGIGYVLNASNTCPKPDFIPESHFLRVPVND SFCEKILPWLDKSVDFIE
KAKASNGCVLVHCLAGISRSATIAIAYIMKRMDMSLDEAYRFVKEKRPTISPNFNFLGQLLDYEKKIKNQTGASGPK
SKLKLHLHLEKPNEPVPVAVSEGGQKSETPLSPPCADSATSEAAGQRPVHPASVPSVPSVQPSLLEDSPLVQALSGLHL
SADRLED SNKLKRSFSLDIKSVSYASMAASLHGFSSSEDALEYYPSTTLDGTNKL CQFSPVQELSEQTPETSPDK
EEASIPKKLQTARPSDSQSKRLHSVRTSSSGTAQRSLLSPLHRSGSVEDNYHTSFLFGLSTSQQHLTKSAGLGLKGW
HSDILAPQTSTPSLTSSWYFATESSHFYASAIYGGSASY SAYSCSQLPTCGDQVYSVRRRQKPSDRADSRRSWHEE
SPFEKQFKRRSCQMEFGESIMSENRSREELGKVG SQSSFSGSMEIIEVS

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Figure 3.

1 GAGAGAAGGA GAAGATAATA TACTGAAAAG AAGAGGAGGA GGAGAGCGAC GGGACGGGAC
61 GCGAGCGGGA GCGCAGCCGC CCTCTCGGCT CCGCGGCGGC GCCTCGCAAG TCCGGGAGGC
121 GAGGGGGGCC CGAGGGGAGA CGCCGTGACA ACTTTCGTTT CCCTCTGAGG GAATTGGGAG
181 GTCGGCGGCC CCAAAAGCTT TCAGTCCAGT GTAAAGCTGT TGGAGCGCGG GAGCAAAGGT
241 AAAGAATGAT GTAATGCGCT GGCTGCTCCA AAGCATCTTT TGTGTGGAA TGGTTATTCC
301 AGTCATCTCT TTATGAATCA AATGTGAGGG GCTGCTTTGT GGACGGAGTC CTTTGCAAGA
361 GCACATCAAC GGGAAAGAGA AAGAGACATT CACTTGGAGG GCTCTTGCTG AAAATGGGTT
421 TAACTCTCCT TTTGCCAGTC ACCACCAGCC TGACCTCATA CACTTTTAGT ACAATGGAGT
481 GGCTGAGCCT TTGAGCACAC CACCATTACA TCATCGTGGC AAATTAAAGA AGGAGGTGGG
541 AAAAGAGGAC TTATTGTTGT CATGGCCCAT GAGATGATTG GAACTCAAAT TGTACTGAG
601 AGGTTGGTGG CTCTGCTGGA AAGTGAACG GAAAAAGTGC TGCTAATTGA TAGCCGGCCA
661 TTTGTGGAAT ACAATACATC CCACATTTTG GAAGCCATTA ATATCAACTG CTCCAAGCTT
721 ATGAAGCGAA GGTGCAACA GGACAAAGTG TTAATTACAG AGCTCATCCA GCATTCAGCG
781 AAACATAAGG TTGACATTGA TTGCAGTCAG AAGGTTGTAG TTTACGATCA AAGCTCCCAA
841 GATGTTGCCT CTCTCTCTTC AGACTGTTTT CTCACTGTAC TTCTGGGTAA ACTGGAGAAG
901 AGCTTCAACT CTGTTCACTT GCTTGCAGGA GCTGATGCAG CAGAATGGGA TTGGTTATGT
961 GTTAAATGCC AGCAATACCT GTCCAAAGCC TGACTTTATC CCCGAGTCTC ATTTCTGCG
1021 TGTGCCTGTG AATGACAGCT TTTGTGAGAA AATTTGCGG TGTTTGGACA AATCAGTAGA
1081 TTTCAATTGAG AAAGCAAAAG CCTCCAATGG ATGTGTTCTA GTGCACTGTT TAGCTGGGAT
1141 CTCCCGCTCC GCCACCATCG CTATCGCCTA CATCATGAAG AGGATGGACA TGTCTTTAGA
1201 TGAAGCTTAC AGATTGTGTA AAGAAAAAAG ACCTACTATA TCTCCAACT TCAATTTTCT
1261 GGGCCAACTC CTGGACTATG AGAAGAAGAT TAAGAACCAG ACTGGAGCAT CAGGGCCCAA
1321 GAGCAAATC AAGCTGCTGC ACCTGGAGAA GCCAAATGAA CCTGTCCCTG CTGTCTCAGA
1381 GGGTGGACAG AAAAGCGAGA CGCCCCTCAG TCCACCCTGT GCCGACTCTG CTACCTCAGA
1441 GGCAGCAGGA CAAAGGCCCG TGCATCCCGC CAGCGTGCCC AGCGTGCCCA GCGTGCAGCC
1501 GTCGCTGTTA GAGGACAGCC CGCTGGTACA GCGCTCAGT GGGCTGCACC TGTCCGAGA
1561 CAGGCTGGAA GACAGCAATA AGCTCAAGCG TTCTTCTCT CTGGATATCA AATCAGTTTC
1621 ATATTAGCC AGCATGGCAG CATCCTTACA TGCTTCTCC TCATCAGAAG ATGCTTTGGA
1681 ATACTACAAA TCTTCCATA CTCTGGATGG GACCAACAAG CTATGCCAGT TCTCCCTGT
1741 TCAGGAACCTA CCGAGCAGA CTCCCGAAAC CAGTCTGAT AAGGAGGAAG CCAGCATCCC
1801 CAAGAAGCTG CAGACCGCCA GGCCTTCTG CAGCCAGAGC AAGCGATTGC ATTCGGTCAG
1861 AACCAGCAGC AGTGGCACCG CCCAGAGGTC CCTTTTATCT CCACTGCATC GAAGTGGGAG
1921 CGTGGAGGAC AATTACCACA CCAGCTTCCT TTTCGGCCTT TCCACCAGCC AGCAGCACCT
1981 CACGAAGTCT GCTGGCCTGG GCCTTAAGGG CTGGCACTCG GATATCTTGG CCCCCAGAC
2041 CTCTACCCCT TCCTTGACCA TTTTGCCACA GAGTCCCTAC ACTTCTACTC
2101 TGCCTCAGCC ATCTACGGAG GCAGTGCCAG TTACTCTGCC TACAGCTGCA GCCAGCTGCC
2161 CACTTGCGGA GACCAAGTCT ATTCTGTGCG CAGGCGGCAG AAGCCAAGTG ACAGAGCTGA
2221 CTCGCGCGCG AGCTGGCATG AAGAGAGCCC CTTTGAAAAG CAGTTTAAAC GCAGAAGCTG
2281 CCAAATGGAA TTTGGAGAGA GCATCATGTC AGAGAACAGG TCACGGGAAG AGCTGGGGAA
2341 AGTGGGCAGT CAGTCTAGCT TTTCCGGCAG CATGGAAATC ATTGAGGTCT CCTGAGAAGA
2401 AAGACACTTG TGACTTCTAT AGACAATTTT TTTTCTTGT TCACAAAAA ATTCCCTGTA
2461 AATCTGAAAT ATATATATGT ACATACATAT ATATTTTGG AAAATGGAGC TATGGTGTA
2521 AAGCAACAGG TGGATCAACC CAGTTGTTAC TCTCTTAACA TCTGCATTG AGAGATCAGC
2581 TAATACTTCT CTCACAAAA ATGGAAGGGC AGATGCTAGA ATCCCCCTA GACGAGGAA
2641 AACCATTPTA TTCAGTGAAT TACACATCCT CTTGTTCTTA AAAAAGCAAG TGTCTTTGGT
2701 GTTGGAGGAC AAAATCCCCT ACCATTTTCC ACGTTGTGCT ACTAAGAGAT CTCAAATATT
2761 AGTCTTTGTC CGGACCCTTC CATAGTACAC CTTAGCGCTG AGACTGAGCC AGCTTGGGGG
2821 TCAGGTAGGT AGACCCTGTT AGGGACAGAG CTTAGTGGTA AATCCAAGAG AAATGATCCT
2881 ATCCAAAGCT GATTACAAAA CCCACGCTCA CCTGACAGCC GAGGGACACG AGCATCACTC
2941 TGCTGGACGG ACCATTAGGG GCCTTGCCAA GGTCTACCTT AGAGCAAACC CAGTACCTCA
3001 GACAGGAAAG TCGGGGCTTT GACCACTACC ATATCTGGTA GCCCATTTTC TAGGCATTGT
3061 GAATAGGTAG GTAGCTAGTC ACATTTTCA GACCAATTCA AACTGTCTAT GCACAAAATT
3121 CCCGTGGGCC TAGATGGAGA TAATTTTCTT TCTTCTCAG CTTTATGAAG AGAAGGGAAA
3181 CTGTCTAGGA TTCAGCTGAA CCACCAGGAA CCTGGCAACA TCACGATTTA AGCTAAGGTT
3241 GGGAGGCTAA CGAGTCTACC TCCCTCTTTG TAAATCAAAG AATTGTTTAA AATGGGATTG
3301 TCAATCCTTT AAATAAGAT GAACCTGGTT TC

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Figure 4.

MLPLSLQTVFSLYFWVNWRRASTLFTCLQELMQQNGIGYVLNASNTCPKPDFIPESHFLRVPVNDSECEKILPWLDK
SVDFIEKAKASNGCVLVHCLAGISRSATIAIAYIMKRMDMSLDEAYRFVKEKRPTISPNFNFLGQLLDYEKKIKNQT
GASGPKSKLLHLEKPNPVPVAVSEGGQKSETPLSPPCADSATSEAAGQRPVHPASVPSVPSVQPSLLEDSPLVQA
LSGLHLSADRLEDSENKLRFSFLDIKSVSYSASMAASLHGFSSSEDALEYYPSTTLDGTNKLCOFSPVQELSEQTP
ETSPDKEEASIPKKLQTARPSDSQSKRLHSVRTSSSGTAQRSLLSPLHRSGSVEDNYHTSFLFGLSTSQQHLTKSAG
LGLKGWHS DILAPQTSTPSLTSSWYFATESSHFYASAIYGGSASYSAYSCSQLPTCGDQVYSVRRRQKPSDRADSR
RSWHEESPFEKQFKRRSCQMEFGESIMSENRSREELGKVGSSQSSFSGSMEIIEVS

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Figure 5

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